

Remarks:

Claims 1-18 remain for consideration. Claims 1 and 18 have been amended.

In the last office action of the parent application (Serial No. 10/366,963), the Examiner rejected claims 1-18 as being indefinite for lacking an antecedent basis for the use of the phrase "base material" in claim 1. This language has been removed from claim 1. The language also appears in claim 18, which has been amended to refer to the substrate. Because all claims in this application depend from claim 1, these changes should overcome this rejection.

The Examiner rejected claims 1 and 8-18 as being unpatentable over U.S. Patent No. 6,103,456 to Többen et al. in view of U.S. Patent No. 6,010,956 to Takiguchi et al. In making this rejection, the Examiner stated that Többen et al. disclose a general method of applying a fill composition to the bottom and sidewalls of a dual damascene structure, but do not disclose the claimed physical characteristics. In this rejection, the Examiner stated that by combining the method of Többen et al. with the composition of Takiguchi et al., one could achieve the same properties as what is claimed in the application.

To rebut this assertion, the Applicants are enclosing a Declaration by Xie Shao, an inventor named on this application. Referring to paragraphs 4 and 5 of the Declaration, two embodiments of the Takiguchi et al. composition were prepared and subjected to the prebake thermal stability test and the film shrinkage test described in the present application. There was difficulty in achieving a uniform film suitable for the thickness measurements necessary to these tests. To ensure optimal performance of the tested compositions, a variety of prebake and postbake temperatures were used.

Regardless of these attempts, neither of these compositions possessed the claimed property of being at least about 70% removed during the prebake thermal stability test. Thus, this limitation is entirely missing from the Többen et al. and Takiguchi et al. references. Furthermore, there is no teaching or suggestion to modify the teachings of these references to obtain this property. It is respectfully submitted that this rejection should be withdrawn.

The Examiner also rejected claim 2-7 as being unpatentable over Többen et al. in view of Takiguchi et al. and U.S. Patent No. 4,665,007 to Cservak. However, claims 2-7 depend from claim 1, and are, therefore, patentable for the same reasons as claim 1.

Claims 1 and 8-18 were also rejected as being obvious under U.S. Patent No. 6,140,226 to Grill et al. in view of U.S. Patent No. 5,602,198 to Das et al. The Examiner stated that Grill et al. disclose a general method of applying a fill composition to a substrate, but Grill et al. do not disclose the specific properties of the fill composition. The Examiner posited that one with average skill in the art would know to combine the method of Grill et al. with the composition disclosed by Das et al. to obtain the properties recited in the pending claims. As the results in the Shao Declaration show, this is not the case. The composition according to Example 1 of Das et al. was formulated and subjected to the prebake thermal stability and film shrinkage tests. The Das et al. composition was not at least about 70% removed during the prebake thermal stability test, in fact, very little of the composition was removed at all. The test results in the Shao Declaration clearly show that the Das et al. composition does not possess the claimed prebake thermal stability test property of the present

application, and there is no teaching or suggestion to modify the Das et al. or Grill et al. teachings to obtain this property.

Furthermore, the Examiner's rejection under Das et al. is predicated on non-analogous art. The Das et al. patent and the present application involve two different fields of endeavor; the Applicants are concerned with antireflective coatings for integrated circuit manufacture, while Das et al. are concerned with clearcoat compositions for application to metals. Das et al. teach a coating suitable for automotive exteriors. Das et al. teach that their composition is suitable for surfaces including "wood, metals, glass, cloth, plastic, foam, including elastomeric substances and the like," but never indicate that it would be useful in integrated circuit manufacture. (column 4, lines 48-49). Additionally, the Das et al. reference is not relevant to the problem solved by the present application. Das et al. address the problems of acid-etch resistance, rapid setting, and gloss, while the present invention is designed as an antireflective coating with improved flow and fill properties. Because the Das et al. reference and the present application neither concern the same field of endeavor, nor address similar problems, it is respectfully requested that this rejection be withdrawn.

The Examiner also rejected claims 2-7 as being obvious under Grill et al. in view of Das et al. and Cservak. Because the method of claim 1, from which claims 2-7 depend, is patentable over Das et al. and Grill et al., for the reasons stated above, these claims are also patentable.

It is believed that no further issues exist with respect to this application. The Applicants respectfully request a Notice of Allowance.

Any additional fees due in conjunction with this amendment should be applied against our  
Deposit Account No. 19-522.

Respectfully submitted,

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